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ABSTRACT

Four major formulations of the relationship between sex role orientation and successful adaptation have found support in the literature: a traditional sex role, androgyny, masculinity, and androgyny for females. The adaptive implications of sex role orientation were examined on constructs reflecting intrapersonal functioning, i.e., ego identity achievement, mood, actual-ideal self-concept congruence, and cognitive complexity. Male (N=92) and female (N=94) college students completed the Bem Sex Role Inventory, the Ego Identity Achievement Scale, a form of the Rep Grid, and a mood self-report item. To test among the four formulations and to allow a more precise comparison of the effects of gender and sex role on the adaptation measures, six groups were formed: masculine males, androgynous males, feminine males, masculine females, androgynous females, and feminine females. Although the masculine male group showed the most effective functioning on the adaptation measures, the feminine female group showed the least effective functioning, indicating lack of support for the traditional formulation of sex typing for both genders. The formulation that psychological androgyny is most adaptive for both genders was not supported, since the androgynous male group consistently showed the least effective functioning on all adaptation measures. The formulation of a gender by sex role interaction in adaptation, with an advantage of androgyny for females was not supported since the female androgynous and female masculine groups performed equally efficiently. The formulation that level of masculinity is the most important determinant of adaptation for both genders was provided considerable support. (NRB)

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Sex role orientation and adjustment: Comparisons of four models

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There are four major formulations concerning the adaptive implications of sex role orientation. These are: (1) the traditional formulation which suggests that the sex role conventionally appropriate to one's gender is more adaptive, (2) the formulation that psychological androgyny (i.e. the balance of masculinity to femininity), is significant in adaptation, with more effective adaptation associated with psychological androgyny (concurrently high levels of both masculinity associated with femininity) for both genders, (3) the formulation that level of masculinity is the most important determinant of adaptation, with greater masculinity associated with more adaptive functioning for both genders, and (4) the formulation that there is a gender by sex role interaction in adaptation, in which there is an advantage of androgyny for females. Each of these formulations has received some support in the literature. Further, the measure of adaptation used may be a determinant of the relationship between gender, sex role and adaptation, with some measures of adaption reflecting an unintentional masculine or feminine bias (Carlson, 1971).

For example, research on sex role and self-esteem has garnered support for higher self-esteem as related to androgyny (Bem, 1977; O'Connor, Mann, & Bardwick, 1978; Spence, Helmreich & Stapp, 1975), as related primarily to masculinity (Antill & Cunningham, 1979; Jones, O'Chervonetz, & Hanson, 1978; Kelly & Worrel,

1977), and for a relationship determined by a gender by sex role interaction (Jones, O'Chervonetz, & Hanson, 1978).

This study further examines the adaptive implications of each of the four sex role orientations on constructs reflecting effectiveness of intrapersonal functioning for both males and for females. The implications of sex role orientation were assessed for each of these intrapersonal adaptation constructs: (1) ego identity achievement, (2) mood, (3) actual-ideal self-concept, and (4) cognitive complexity.

Ego Identity Achievement

Ego identity achievement, an Eriksonian construct (1956) was measured by Dignan's (1965) Identity Achievement Scale. Since the process of ego identity achievement concerns the person actively and instrumentally constructing his/her identity, this measure/construct was assumed to reflect a more masculine (agenic) than feminine (communal) orientation. Thus, it was hypothesized that for both genders, greater masculinity would be significantly correlated with greater ego identity achievement scores. Further, it was hypothesized that, for both genders, the masculine sex role groups would show greater identity achievement scores than the androgynous groups, followed by the feminine groups.

Mood

Mood is thought to provide a global indicant of

adaptation from the affective domain. One consistent finding from the mental health and gender literature is that females tend to report depression (lower mood level more frequently than males (Guttentag & Salisbury, 1977). From these findings, one can speculate that femininity, to the degree that it is associated with female gender, and with expressive permission, might be associated with lower mood level. Further, to speculate, since masculinity is associated with greater self-esteem and is highly valued culturally, it would be expected that masculinity would be associated with higher mood level. It was hypothesized that for both sexes, greater masculinity would be significantly correlated with higher mood level. It was further hypothesized for both sexes, that the masculine groups would report the highest mood level, followed by the androgynous groups, and then the feminine groups.

Actual Ideal Self-concept Congruence

Actual ideal self-concept congruence was used as a global measure of adaptation. This measure has been variously conceptualized as an indicant of self-acceptance, self-esteem, self-satisfaction, and personal adjustment (Wells & Maxwell, 1976, p. 66). The greater the actual ideal self-concept congruence, the more effective the presumed adaptation. Actual ideal self congruence was operationalized by counting the total number of identical ratings of "self" and "ideal self" on fifteen

bipolar elicited personal constructs from a standard 15 (construct) by 10 (persons) Role Construct Repertory (Rep) Grid (Kelly, 1955). Since there appears to be more/stronger evidence associating masculinity, rather than femininity, with greater self-esteem[1], it was hypothesized that for both genders, masculinity would be significantly and positively correlated with greater actual ideal self-concept congruence. It was further hypothesized that the masculine group would show the greatest actual ideal self congruence for males. No hypotheses were held for females, since evidence can support the notion that either of the three group classifications could be associated with more adaptive functioning.

Interpersonal Cognitive Complexity

Bem (1979) contends that persons of different sex roles differ "in their cognitive structures for coding and processing (gender related) information." To speculate, if Bem's (1979) contention is correct, the androgynous person, personally possessing traits characteristic of both masculinity and femininity, might develop/use a more complex cognitive structure for person perception. This notion can be tested within the context of Kelly's (1955) Personal Construct Theory. According to this theory, each person evolves a cognitive system of personal constructs which are used to understand

[1]The segment of literature showing that masculinity is associated with greater self-esteem, in addition to that indicating that masculinity is culturally more highly valued than femininity (Forisha, 1978, Spence et al, 1975).

life-events. The Kellian notion of cognitive complexity provided an operationalization of the complexity of the person's cognitive structures for person perception. Greater interpersonal cognitive complexity might be associated with construing other persons from a larger number of perspectives than lesser complexity. Further, the cognitive complexity measure/construct appears to require concurrently high levels of characteristics stereotypically associated with both masculinity and femininity to achieve greater complexity. More specifically, the generation of personal constructs from the Rep Grid involves construing similarities (stereotypically a feminine, communal function) and differences (stereotypically a masculine, analytical function) among a set of elements (persons) that are often considered a social (stereotypically feminine domain. Thus, the androgynous person, for these theoretical reasons, would be expected to show greater complexity. It was hypothesized that, for both genders, the androgynous group would show greater complexity than either the masculine or the feminine group.

Method

One hundred and eighty seven introductory psychology college students (92 males, M age = 19.3 yr., SD = 1.4; 94 females, M age = 19.1 yr., SD = 2.8) received extra course credit for participating. They were group administered the Bem Sex Role Inventory (Bem, 1974), Dignan's (1965) Ego Identity Achievement Scale, a 15 (construct) x 10 (person) elicited construct form of the Rep Grid (Kelly, 1955), and a mood self-report item. The Bem Sex Role Inventory (Bem, 1974) is a self-report instrument designed to assess sex role self-concept, which consists of 20 masculine characteristics (e.g. assertive, ambitious, independent), 20 feminine characteristics (e.g. affectionate, tender, gentle), and 20 neutral characteristics (e.g., sincere, helpful, happy), on each of which the respondent evaluates himself/herself. The revised (Dignan, 1966) Ego Identity Scale is a 100 item forced-choice self-report instrument. Items were constructed according to Erikson's (1956, 1963) notion of ego identity. Items concern seven areas of ego identity: sense of self, uniqueness, self-acceptance, role expectation, stability, goal directedness, and interpersonal relationships. Spearman-Brown off-even correlation coefficients were .74 for 130 college freshmen. Test-retest reliabilities ranged from .72 to .78 for two samples. A standard Rep Grid was used. For detailed discussions of Rep

Grid methodology, see Bannister and Mair (1968). A measure of cognitive complexity was derived from each person's completed Rep Grid by comparing the ratings of each construct row with each other row, non-redundantly, and then summing the total number of significant row matches, the more similarly the person is using his/her constructs and therefore, the less the presumed cognitive complexity. The smaller the number of significant row matches, the more independently the person is using his/her constructs and the greater the presumed complexity. The actual ideal self-concept congruence measure was derived from the Rep Grid. The total number of constructs that were used identically in evaluating "self" and "ideal self" were summed. The greater the score the greater the presumed degree of actual self-concept congruence. Mood was assessed by having the respondent rate "how they generally felt during the year" on a single 10-point Elation vs. Depression item (Wessman & Ricks, 1966), with a greater score indicating a higher mood.

Results

Table 1 presents the correlations of each of the four adaptation measures (ego identity achievement, actual ideal self-concept congruence, cognitive complexity, and mood) with Bem Sex Role Inventory mean masculinity and mean femininity scores. As indicated in Table 1, as hypothesized for the full sample, mean masculinity scores were signigicantly and directly correlated with three of the four adaptation measures: ego identity achievement, $r = .41$; actual ideal self-concept congruence, $r = .17$; and mood, $r = .20$. For the full sample, mean femininity scores were significantly and directly correlated with two of the adaptational measures: cognitive complexity, $r = .24$ and mood, $r = .14$.

For the males, consistent with hypotheses, mean masculinity scores were significantly and directly correlated with three adaptation measures: ego identity achievement, $r = .43$; actual ideal self-concept congruence, $r = .21$; and mood, $r = .31$. Also for males, mean femininity scores were significantly and directly correlated with cognitive complexity scores ($r = .26$). For the females, as hypothesized, mean masculinity scores were significantly correlated with ego identity scores ($r = .35$). Also for the females, mean femininity scores were significantly and directly correlated with cognitive complexity scores ($r = .33$).

Thus, for both males and females, as hypothesized, mean masculinity scores were significantly and directly correlated with identity achievement scores. Further, for both males and females, mean femininity scores were significantly and directly correlated with cognitive complexity scores.

To test among the four formulations and to allow a more precise comparison of the effects of gender and sex role on the adaptation measures, six groups were formed: masculine males, androgynous males, feminine males, masculine females, androgynous females, and feminine females. The criteria for group assignment were Bem Sex Role Inventory $\underline{t}$ scores as follows: masculine group $\underline{t} < -1.0$; androgynous group, $-1.0 < \underline{t} > 1.0$; feminine group, $t > 1.0$. Since no respondent recorded mean masculinity and mean femininity scores below 9.0 concurrently on the Bem-Sex Role Inventory, no undifferentiated group was used. Then, mean scores on each of the four adaptation measures were compared among the six groups. Four one way ANOVAS were performed, one for each adaptation measure, with the six groups as the independent variable. Further, for both males and females, the three groups (masculine, androgynous, and feminine) were ranked ordered from highest to lowest on each adaptation measure.

Insert Table 1 About Here

Table 1. Correlations Between the Four Adaptation Measures (Ego Identity Achievement, Actual Ideal Self-concept Congruence, Cognitive Complexity, Mood) and Bem Sex Role Inventory Mean Masculinity and Mean Femininity Scores

	Ego Identity Achievement	Actual Ideal Self-Concept Congruence	Cognitive Complexity	Mood
Full Sample				
(n = 187)				
Mean Masculinity	.41, $p < .001$	.17, $p < .01$	.08	.20, $p < .007$
Mean Femininity	.05	-.04	.24 $p < .0008$	.14, $p < .05$
Males				
(n = 92)				
Mean Masculinity	.43, $p < .001$	.21, $p < .05$	.10	.31, $p < .003$
Mean Femininity	.06	.02	.26, $p < .01$	.14
Females				
(n = 94)				
Mean Masculinity	.35, $p < .004$	.09	.00	.14
Mean Femininity	.15	-.02	.33, $p < .0009$	.16

Table 2. Mean Scores and Rank Orders on the Four Adaptation Measures (Ego Identity Achievement, Actual Ideal Self-Concept Congruence, Cognitive Complexity, Mood) for Each of the Six Gender x Sex Role Groups

	Ego Identity Achievement		Actual Ideal Self-Concept Congruence		Cognitive Complexity		Mood	
	X = 33.6, SD = 5.3		X = 9.2	SD = 3.0	X = 63.4	SD = 16.4	X = 6.6	SD = 1.3
	Males	Females	Males	Females	Males	Females	Males	Females
Masculine	35.8	34.6	9.8	9.3	65.6	59.2	6.7	6.7
	(1)*	(1)	(1)	(2)	(2)	(1)	(1)	(1)
	n = 68	n = 28						
Androgynous	31.8	33.4	9.1	9.5	72.5	63.9	6.0	6.8
	(3)	(2)	(3)	(1)	(3)	(2)	(3)	(1)
	n = 15	n = 11						
Feminine	32.4	32.7	9.3	8.6	64.1	66.2	6.2	6.6
	(2)	(3)	(2)	(3)	(1)	(3)	(2)	(3)
	n = 9	n = 55						

*The number in parenthesis signifies the rank order of the group.

Table 2 presents mean ego identity achievement scores and rank orders for the six groups. A one way ANOVA with the six groups as the independent variable and identity achievement scores as the dependent variable showed a significant F ratio ($F_{5,180} = 3.08$, $p < .01$). Duncan's multiple range tests showed a significant difference between the male masculine and the male androgynous groups. As hypothesized, for both males and females the masculine groups had the highest mean ego identity achievement scores, respectively 35.8 and 34.6. Among the males, the androgynous group had the lowest mean identity achievement score (31.8). For the females, the feminine group had the lowest mean identity achievement score (32.7).

The mean actual ideal self-concept congruence scores for the six groups are listed in Table 2. Although the ANOVA performed on the congruence scores of the six groups was not significant ($F_{5,180} = 1.0$, ns), group means were inspected to obtain information concerning group order. As hypothesized, for males the greatest congruence score was obtained by the masculine group (9.8). For females, however, the greatest congruence score was obtained by the androgynous group (9.5). The smallest mean congruence scores, showing the least congruence, were obtained for males by the androgynous group (9.1) and for females by the feminine group (8.6).

Table 2 provides a listing of the mean cognitive complexity scores for the six groups. A one way ANOVA conducted on the cognitive complexity scores for the six groups showed a significant F statistic ($F_{5,180} = 2.59$, $p < .03$). Duncan's multiple range tests among groups revealed significant mean differences ($p < .05$) between the female masculine group (59.2) and each of the male masculine (65.6), male androgynous (72.5), and female feminine (66.2) groups. For the males, the smallest mean cognitive complexity score, indicating the greatest complexity, was obtained by the feminine group (64.1), while for females the mean cognitive complexity score indicating the greatest complexity was obtained by the masculine group (59.2). The mean scores indicative of the least cognitive complexity were obtained by the male androgynous group (72.5) and by the female feminine group (66.2).

Mean mood level scores for the six groups are listed in Table 2. A one way ANOVA with the six groups as the independent variable and with the mood level scores as the dependent variable showed no significant group differences ($F_{5,180} = 1.0$, ns). Group means were inspected to reveal information concerning group order. As hypothesized, the masculine males recorded the highest reported mean mood level for the males

(6.7). However, the androgynous females recorded the highest mood level for females (6.8). The lowest mean mood levels were in the androgynous group for males (6.0) and in the feminine group for females (6.6).

Insert Table 2 About Here

Summary of Findings: Males

To summarize findings for males, mean masculinity scores were significantly and directly correlated with three adaptation measures: ego identity achievement, actual ideal self-concept congruence and mood. Further, for males, findings concerning group rank order indicated that the masculine group showed the highest mean scores, indicating most effective functioning, on three of the adaptation measures: ego identity achievement, actual ideal self-concept congruence, and mood. The male masculine group also recorded the middle score on the cognitive complexity measure. Thus, the overall rank of the male masculine group on the four adaptation measures was 1.25. The male feminine group achieved the score indicative of the greatest cognitive complexity for males, as well as the middle scores on ego identity achievement, actual ideal self-concept congruence, and mood. The overall rank of the male feminine group was 1.75, which is second to the male masculine group. The male androgynous group recorded the lowest mean scores,

indicating the least effective functioning, on each of the four adaptation measures. It is noted that the group order effects for the male masculine group and the male androgynous group were quite consistent, with the male masculine group obtaining scores indicative of the most effective functioning on three of four adaptation measures, while the male androgynous group recorded scores indicative of the least effective functioning on each of the four adaptation measures. This consistent order effect was found even though the mean scores of these two groups were significantly different on only the ego identity achievement measure. Thus, for males it is clear that on three of the four adaptation measures the masculine sex role is more adaptive. Further, for males it clearly appears that the androgynous sex role is least adaptive.

Summary of Findings: Females

To summarize findings for females, a significant direct relationship was found between masculinity and ego identity achievement, while a significant inverse relationship was found betweeen femininity and cognitive complexity. Further for females, findings concerning group rank order showed that the masculine and androgynous groups performed similarly, both obtaining a rank order of 1.5 for the four adaptation measures. The female

masculine group obtained scores indicative of most effective functioning on ego identity achievement and cognitive complexity, while obtaining the middle scores on actual ideal self-concept congruence and mood. The female androgynous group obtained scores indicative of most effective functioning on actual ideal self-concept congruence and on mood, while obtaining the middle scores on identity achievement and cognitive complexity. The female feminine group showed the least effective functioning for females, with scores indicating least effective functioning on each of the four measures of adaptive functioning.

The overall rank of the female feminine group was 3.0. Thus, based upon these measures of adaptation, it appears that for females both masculinity and androgyny are adaptive sex role orientations. This finding is consistent with the notion that females have a potentially larger number of adaptive behavioral alternatives in our society. The female feminine group showed a clear adaptive liability, scoring lowest on each of the four adaptation measures. However, this conclusion is tempered by the finding that the female masculine and the female feminine groups differed significantly on only the cognitive complexity measure.

Implications of Findings

It appears that these findings support Flaherty & Dusk's (1980) notion that some measures of adjustment emphasize stereotypically masculine characteristics, while others emphasize feminine characteristics. Identity achievement and actual/ideal self-concept congruence were classed as more "masculine" measures, while "interpersonal cognitive complexity" was classed as "androgynous measure."

Ego Id

Findings for males on the ego identity scores show sex-typed masculine males achieving highest ego identity scores and androgynous males showing the lowest. However, findings for females are not consistent with the traditional formulation. Sex type females who, according to the traditional formulation should score highest, scored lowest. Masculine females and androgynous females scored similarly high in ego identity. Thus, a high level of masculinity appears important in females' ego identity achievement. Androgynous males may experience lesser identity achievement due to conflicting options that include feminine options, which are less socially desirable for the male than the female (Forisha, 1972). The feminine males may have a strong sense of role, socially desirable or not. The simultaneous options of masculinity and femininity may be less confusing for the female since both are socially acceptable and masculinity provides her with an agentic

instrumental orientation.

Cognitive Complexity

Cognitive complexity may be construed as an "androgynous measure" of personality. This scale employs people in the form of significant others as the stimuli, reflecting a stereotypically feminine aspect and employed the ordering of the external environment in terms of constructs reflecting an instrumental analytic masculine orientation. The present findings indicates that for females masculinity leads to greater complexity. Perhaps socialization as a female yields interpersonal sensitivity and the presence of masculinity in the personality facilitates the analytic ordering of persons with constructs. The more masculinity relative to femininity the more complex this structure appears to be in females. For males it would appear that femininity is required for interpersonal sensitivity necessary for the application of socialized analytic skills in an interpersonal context. This interpretation fits well with masculine and androgynous females scoring higher than feminine females who presumably lack the masculine analytic component, but fails to explain the androgynous males scoring lowest.

When taken in context with other measures of adjustment used in this study the findings for males on cognitive complexity may be considered to reflect the lack of adjustment and perhaps interpersonal confusion of the

androgynous male in our culture. Is the androgynous male interpersonally cognitively simple because he is poorly adjusted or poorly adjusted because he is cognitively simple and thus conflicted by the greater role choices afforded by androgyny? It is notable that Bem's (1979) notion of greater cognitive complexity for androgynous subjects is not supported here. Perhaps, this scale is not heavily enough related to gender related information to reflect the relationship between androgyny and complex schemes for gender related material.

Conclusion

The traditional formulation of sex typing for both genders was clearly not supported. Although the male masculine group showed the most effective functioning on the adaptation measures, the female feminine group showed the least effective functioning. The formulation that psychological androgyny is most adaptive for both genders was not supported. The female androgynous group performed as effectively as the female masculine group on the adaptation measures, using rank order criteria. Also, the male androgynous group consistently showed the least effective functioning on all adaptation measures for males. The formulation of a gender x sex role interaction in adaptation, with an advantage of androgyny for females was not supported. The female androgynous and female masculine groups performed equally effectively based upon rank order criteria. There was clearly no decided advantage for the female androgynous group as compared to the female masucline group. The formulation that level of masculinity is the most important determinant of adaptation for both genders was provided considerable support. For both males and females the masculine groups showed the most effective adaptation. The male masculine group performed most effectively on three of the four adaptation measures, while the female masculine group performed most effectively on two of the four. Further, evidence based upon correlations between masculinity

and adaptation measures corroborates this conclusion. For males, masculinity was significantly and directly related to three of the adaptation measures. For females, masculinity was significantly and directly related to ego identity achievement. Thus, it is concluded that these findings support the notion that level of masculinity is the most important determinant of adaptation as assessed by these measures.

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